

REMARKS

Reconsideration and allowance of the present application are respectfully requested. Claims 1-24 remain pending in the application. By this amendment, claims 1 and 12 are amended.

In numbered paragraph 2 of the Office Action, independent claims 1 and 12, along with various dependent claims, are rejected as being anticipated by U.S. 2003/0160881 (Roddy et al.). In numbered paragraph 4 of the Office Action, dependent claims 7 and 20 are rejected as being unpatentable over the Roddy et al. publication, in view of U.S. Patent 5,923,380 (Yang et al.). In numbered paragraph 5 of the Office Action, dependent claims 8 and 21 are rejected as being unpatentable over the Roddy et al. publication in view of the Yang et al. patent, and further in view of U.S. Patent 6,219,140 (Kaplan). In numbered paragraph 6 of the Office Action, dependent claims 9 and 22 are rejected as being unpatentable over the Roddy et al. publication in view of U.S. Patent 7,154,545 (Gann et al.). In numbered paragraph 7 of the Office Action, dependent claim 16 is rejected as being unpatentable over the Roddy et al. publication in view of U.S. 2004/0100570 (Shizukuishi). These rejections are respectfully traversed.

Applicants have disclosed an image sensing device and a method of capturing an electronic representation of an image. For example, Applicants have disclosed a plurality of photosensors arranged in at least one array, such that each of the photosensors converts incident light into an output signal, the photosensors and their respective output signals being divided into a plurality of color channels; and a filter associated with each of the photosensors, the filters selecting light within predetermined spectral bands for conversion by the photosensors into the output

signals (e.g., page 13, lines 22-36). One color channel comprises at least two color sub-channels and the filters associated with the photosensors of at least two of the color sub-channels having overlapping spectral bands wherein one of the overlapping spectral bands is narrower in bandwidth than another of the overlapping spectral bands (e.g., page 14, lines 8-12).

As exemplified in Fig. 6, Applicants have further disclosed that for the green channel, and/or any other channel that has multiple sub-channels, the sub-channel signals are scaled and extended by interpolation of signals from the other sub-channels of the same color channel (e.g., page 14, lines 26-30).

The foregoing features are broadly encompassed by claims 1 and 12, which recite, among other features, signals from one of the at least two color sub-channels can be scaled or extended by interpolation based on signals from the other of the at least two color sub-channels of the same color channel.

The Roddy et al. publication would not have taught or suggested "signals from one of the at least two color sub-channels can be scaled or extended by interpolation based on signals from the other of the at least two color sub-channels of the same color channel," as recited in claims 1 and 12. Rather, the Roddy et al. publication merely discloses a preferred arrangement of RGBC filters in a color filter array in which "the green and blue-green filters can be used to represent the luminance signal, and are alternated with red and blue" (paragraph [0043]). This is to address the need for a "luminance" signal to have a "higher resolution than the red and blue 'chrominance' signals" (paragraph [0043]). Nowhere in the Roddy et al. publication disclose any teaching or suggestion of scaling or extending by interpolation based on

signals from the other of at least two color sub-channels of the same color channel, as recited in claims 1 and 12.

The Yang et al. patent, the Kaplan patent, the Gann et al. patent and the Shizukuishi publication, when considered individually or in the combination as suggested by the Examiner, do not cure the deficiencies of the Roddy et al. publication. The Yang et al. patent was applied by the Examiner for its disclosure of the use of wratten filters (col. 7, lines 23-38); the Kaplan patent was applied by the Examiner for its disclosure of the use of Kodak filter arrays (col. 4, line 42 through col. 5, line 12); the Gann et al. patent was applied by the Examiner for its disclosure of photosensor line-arrays to sense two different spectral bandwidths (col. 5, line 63 - col. 6, line 3); and the Shizukuishi publication as applied by the Examiner for its disclosure of two small pixels having two different kinds of green spectral sensitivities G1 and G2 (paragraphs [0152] and [0153]). The Yang et al. patent, the Kaplan patent, the Gann et al. patent and the Shizukuishi publication, when considered individually or in the various combinations with the Roddy et al. publication as suggested by the Examiner, would not have taught or suggested at least signals from one of the at least two color sub-channels being scaled or extended by interpolation based on signals from the other of the at least two color sub-channels of the same color channel, as recited in claims 1 and 12.

Applicant's claims 1 and 12 are allowable over the applied references. The remaining claims depend from independent claims 1 and 12, and recite additional advantageous features which further distinguish over the documents relied upon by the Examiner. As such, the present application is in condition for allowance.

All objections and rejections raised in the Office Action having been addressed, it is respectfully submitted that the application is in condition for allowance and a Notice of Allowance is respectfully solicited.

Respectfully submitted,

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